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EXHIBIT R-2, RDT&E Budget Item Justification					DATE: **February 2000**				
APPROPRIATION/BUDGET ACTIVITY **RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA7**					R-1 ITEM NOMENCLATURE Amphibious Tactical Support Unit/0204413N				

COST ($ in Millions)	Prior Year	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total PE Cost	0.649	1.822	0.000	7.911	13.589	8.424	6.884	0.191	0.000	39.470
SACC AUTOMATION/21980	0.000	0.000	0.000	0.000	5.787	7.467	6.884	0.191	0.000	20.329
MULTI-MISSION LCAC/LCU REPLACEMENT/22231	0.649	1.822	0.000	2.932	7.802	0.957	0.000	0.000	0.000	14.162
AMPHIBIOUS LIGHTERAGE DEVELOPMENT/Y2909	0.000	0.000	0.000	4.979	0.000	0.000	0.000	0.000	0.000	4.979
Quantity of RDT&E Articles										

A. Mission Description and Budget Item Justification: This Program Element supports various amphibious development efforts.

B. Program Change Summary:

	FY 1999	FY 2000	FY 2001
FY 2000 President's Budget:	1.869	0.000	2.952
Appropriated Value:	1.869		
Adjustments to FY 1999 Appropriated Value/ FY 2000 President's Budget: Funding:			
a. SBIR	-0.015		
b. NWCF Rate Adjustments			0.026
c. Mid-Year Review Reprogrammings (BTR)	-0.018		
d. Inflation Savings	-0.009		-0.059
e. Other Execution Adjustments	-0.005		
f. Navy Ops Adjustments			-0.008
g. Realign Funding from OPN to RDT&E (Y2909)			5.000
FY 2001 PRES Budget Submit:	1.822	0.000	7.911

  Schedule : Not Applicable
  Technical: Not Applicable

Exhibit R-2, RDT&E Budget Item Justification (Exhibit R-2, Page 1 of 12)

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EXHIBIT R-2a, RDT&E Project Justification					DATE: **February 2000**				
APPROPRIATION/BUDGET ACTIVITY **RDT&E,N/BA7**		PROGRAM ELEMENT NAME AND NUMBER **Amphibious Tactical Spt Unit/0204413N**			PROJECT NAME AND NUMBER Amphibious Other C2 (SACC Automation)/21980				

COST ($ in Millions)		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project Cost		**0.000**	**0.000**	**0.000**	**5.787**	**7.467**	**6.884**	**0.191**	**0.000**	**20.329**
RDT&E Articles Qty										

A. Mission Description and Budget Item Justification: The Supporting Arms Coordination Center (SACC) initiative is to automate the communications and data flow that calls for fire and supporting arms for marine forces ashore. Currently the process is all manual and voice accomplished which, in the future, will be unresponsive to the needs of supported forces. Specifically, this project will develop the Naval Fire Control System and procure two engineering development ship sets for installation. It will also provide interface with the Advance Combat Direction System (ACDS) which brings the automated functions of supporting arms into the coherent tactical picture.

FY 1999 Accomplishments: Not Applicable
FY 2000 Plan: Not Applicable
FY 2001 Plan: Not Applicable

B. Other Program Funding Summary

	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	To Complete	Total Cost
OPN Line 098100 Items Under $5M	0	0	0	346	346	873	873	Con't	Con't

The procurement items are for jam boxes, Automated Distribution Network Systems (ADNS), and racks which will be permanent changeouts to the amphibious ships. These need to be in place in order to permit the connection of the automated SACC capabilities.

(U) Related RDT&E: Not Applicable

C. Acquisition Strategy: This project is part of a collaboration between N85 and N86 to jointly develop and field a Naval Fire Control System (NFCS) that satisfies the requirements of naval and supported forces. The NFCS is to be an ACAT III program under N86 management.

R-1 SHOPPING LIST - Item No. 165- 2 of 165 - 12

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, Page 2 of 12)

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EXHIBIT R-2a, RDT&E Project Justification	DATE:
	February 2000

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAME AND NUMBER	PROJECT NAME AND NUMBER
RDT&E,N/BA7	**Amphibious Tactical Spt Unit/0204413N**	Amphibious Other C2 (SACC Automation)/21980

D. Schedule Profile:

	FY01	To Complete
Program Milestones	- Not Applicable	- Conduct a SACC reconfiguration study
		- Develop SACC specific software functions
		- Address amphibious ship specific engineering and intregration issues
Engineering Milestones		
T&E Milestones		
Contract Milestones		

**Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, Page 3 of 12)**

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Exhibit R-3 Cost Analysis (page 1)									DATE:		
									February 2000		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NAME AND NUMBER				
RDT&E,N			**Amphibious Tactical Spt Unit/0204413N**				Amphibious Other C2 (SACC Automation)/21980				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development										16.729	16.729	
Ancillary Hardware Development											0.000	
Systems Engineering											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			0.000	0.000		0.000		0.000		16.729	16.729	

Remarks: Software programs to inegrate and automate SACC functions

Development Support Equipment											0.000	
Software Development										2.800	2.800	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
GFE											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		2.800	2.800	

Remarks: Preparation of ship alterations and tech drawings and accompanied support

R-1 SHOPPING LIST - Item No. 165 - 4 of 165 - 12

Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)									DATE: **February 2000**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E,N**			PROGRAM ELEMENT **Amphibious Tactical Spt Unit/0204413N**				PROJECT NAME AND NUMBER Amphibious Other C2 (SACC Automation)/21980				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation											0.000	
Tooling											0.000	
GFE											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support										0.800	0.800	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.800	0.800	
Remarks:												
Total Cost			0.000	0.000		0.000		0.000		20.329	20.329	
Remarks:												

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, Page 5 of 12)

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2000

APPROPRIATION/BUDGET ACTIVITY **RDT&E,N/BA7**	PROGRAM ELEMENT NAME AND NUMBER **Amphibious Tactical Spt Unit/0204413N**	PROJECT NAME AND NUMBER MCAC Weapons Development (Multi-Mission LCAC and LCU)/22231

COST ($ in Millions)	Prior Year	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project Cost	**0.649**	**1.822**	**0.000**	**2.932**	**7.802**	**0.957**	**0.000**	**0.000**		**14.162**
RDT&E Articles Qty										

A. Mission Description and Budget Item Justification: (Multi-Mission LCAC) - LCAC Control Enhancements initiates studies that will provide a remote control capability for LCAC and will be integrated and scheduled with developing minesweeping and shallow water mine-countermeasure systems. LCAC Deep Skirt will provide an improved LCAC performance in Sea State 3 and higher, and improved capability near and in the surf zone for explosive lane breaching missions in support of amphibious operations. This project completes at the end of FY 1999. (LCU) - This project supports development and procurement of a technologically advanced heavy lift utility landing craft to compliment the high speed, over-the-beach, ship-to-shore amphibious lift of the future.

FY 1999 Accomplishments (Multi-Mission LCAC):
- ($0.335) Complete full scale testing of the Deep Skirt
- ($0.450) Conduct MK 58 live fire demo to evaluate LCAC reaction under live fire in the surf zone as part of lane breaching mission.
- ($0.495) Update LCAC and propeller mine vulnerability study
- ($0.542) Develop air conditioning system improvements to assure adequate in surf zone operations

FY 2000 Plan: Not Applicable

FY 2001 Plan ((LCU):
- ($0.240) Conduct requirements update
- ($0.495) Conduct enabling technologies study
- ($1.219) Conduct feasibility studies (3 to 5 major variations)
- ($0.498) Conduct analysis of alternatives
- ($0.480) Conduct market survey analysis

B. Other Program Funding Summary (LCU)

	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	To Complete	Total Cost
SCN Line 510000 Service Craft	0	0	0	0	0	59.283	59.155	Cont.	Cont.

(U) Related RDT&E: Not Applicable

C. Acquisition Strategy (LCU): Feasibility studies will be conducted to determine the best design to meet new Navy requirements for heavy lift utility landing craft and to support a performance specification that will be competitively awarded.

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, Page 6 of 12)

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EXHIBIT R-2a, RDT&E Project Justification	DATE:
	February 2000

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAME AND NUMBER	PROJECT NAME AND NUMBER
RDT&E,N/BA7	**Amphibious Tactical Spt Unit/0204413N**	MCAC Weapons Development (Multi-Mission LCAC and LCU)/22231

D. Schedule Profile (LCU):

	FY01	To Complete
Program Milestones	- Mission needs statement approval	- Evaluation of feasibility of alternatives
	- Assessment of alternatives	- Enabling technology studies
Engineering Milestones		
T&E Milestones		
Contract Milestones		

**Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, Page 7 of 12)**

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Exhibit R-3 Cost Analysis (page 1)					DATE:							
						February 2000						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E,N/BA7			**Amphibious Tactical Spt Unit/0204413N**			MCAC Weapons Development (Multi-Mission LCAC and LCU)/22231						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	NSWC Bethesda, Md								3.975	3.975	
Ancillary Hardware Development	WR	NSWC Bethesda, Md								1.975	1.975	
Systems Engineering	WR	NSWC Bethesda, Md								2.809	2.809	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			0.000	0.000		0.000		0.000		8.759	8.759	
Remarks:												
Development Support Equipment											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
GFE											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, Page 8 of 12)

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Exhibit R-3 Cost Analysis (page 2)									DATE: February 2000			
APPROPRIATION/BUDGET ACTIVITY **RDT&E,N**			PROGRAM ELEMENT **Amphibious Tactical Spt Unit/0204413N**						PROJECT NAME AND NUMBER MCAC Weapons Development (Multi-Mission LCAC and LCU)/22231			
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NSWC,C and PSNSY, Bost	0.574	1.749							2.323	
Operational Test & Evaluation											0.000	
Tooling											0.000	
GFE											0.000	
Subtotal T&E			0.574	1.749		0.000		0.000		0.000	2.323	

Remarks: Requirement for MCAC Multli-mission is for three (3) prototype installations and demonstration trials.

Cost Categories	Contract	Performing	Total PY	FY 99	FY 99 Award	FY 00	FY 00 Award	FY 01	FY 01 Award	Cost to	Total	Target
Contractor Engineering Support	CPRR	TMA	0.075	0.073	10/98						0.148	
Government Engineering Support	WR	NSWC Bethesda, Md						1.997			1.997	
Program Management Support	CPFF	various			10/98			0.935			0.935	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.075	0.073		0.000		2.932		0.000	3.080	

Remarks:

Total Cost			0.649	1.822		0.000		2.932		8.759	14.162	

Remarks:

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Exhibit R-3, Project Cost Analysis
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EXHIBIT R-2a, RDT&E Project Justification						DATE: **February 2000**			

APPROPRIATION/BUDGET ACTIVITY
RDT&E,N/BA7

PROGRAM ELEMENT NAME AND NUMBER
Amphibious Tactical Spt Unit/0204413N

PROJECT NAME AND NUMBER
Amphibious Lighterage Development (JMLS Development)/Y2909

COST ($ in Millions)	Prior Year	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project Cost	0.000	0.000	0.000	4.979	0.000	0.000	0.000	0.000		4.979
RDT&E Articles Qty										

A. Mission Description and Budget Item Justification: Joint Modular Lighterage System (JMLS Development) - This project supports development and procurement of technology to develop a service-interoperable causeway lighterage system with the US Army, capable of assembly and operation (in a loaded condition) through Sea State 3. The Defense Planning Guidance includes requirements for SS3 JLOTS capabiltiy by FY05. Sea State 3 is defined as significant wave height of 3.5 feet to 5.0 feet per the Joint Logistics Over The Shore (JLOTS) Mission Need Statement. This project includes resolution of technical issues identifd during Technical Evaluation and efforts to support/conduct Operation Evaluation of the JMLS system to support transition from an FY98/FY99 Advanced Concept Technology Demonstration (ACTD) to an acquisition program.

   FY 1999 Accomplishments (JMLS Development):
    - JMLS ACTD contractor completed hardware design and began hardware fabrication. (Task accomplished with National Defense Sealift Funds)
   FY 2000 Plan (JMLS Development):
    - JMLS ACTD contractor completes hardware fabrication and Contractor Test and Demonstration. JMLS ACTD Operational Manager, JFCOM
         conducts Military Utility Assessment (MUA). (Task accomplished with National Defense Sealift Funds)
    - OPEVAL Planning. (Anticipating RDT&E funds to be available, $0.250)
   FY 2001 Plan (JMLS Development):
    - ($0.979) Resolve Technical Evaluation issues.
    - ($4.000) Conduct JMLS OPEVAL.

B. Other Program Funding Summary (JMLS Development)

	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	To Complete	Total Cost
CESE Line 6033 Amphib Equipment (OPN)	0	20.484	51,615	93,173	104,242	56,992	14,643	174,035	515,184

(U) Related RDT&E: n/a

C. Acquisition Strategy (JMLS): The MUA for the JMLS ACTD is scheduled to complete in 3Q FY00 to support a LRIP milestone decision in 4QFY00. Additional hardware will be procured by LRIP to conduct a full OPEVAL in 2Q-3Q FY01.   OPEVAL results will be used to support a Full Production milestone decision in FY01.

D. Schedule Proflie:

	FY00	FY01
Program Milestones	- Complete ACTD MUA	- Resolve TECH EVAL issues.
	- LRIP MS	- Conduct OPEVAL

Exhibit R-2a, RDT&E Project Justification
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Exhibit R-3 Cost Analysis (page 1)										DATE:		
										February 2000		
APPROPRIATION/BUDGET ACTIVITY **RDT&E,N/BA7**			PROGRAM ELEMENT **Amphibious Tactical Spt Unit/0204413N**				PROJECT NAME AND NUMBER Amphibious Lighterage Development (JMLS Development)/Y2909					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development										0.000	0.000	
Ancillary Hardware Development										0.000	0.000	
Systems Engineering										0.000	0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			0.000	0.000		0.000		0.000		0.000	0.000	

Remarks:

Development Support Equipment											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
GFE											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	

Remarks:

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, Page 11 of 12)

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Exhibit R-3 Cost Analysis (page 2)					DATE: **February 2000**						
APPROPRIATION/BUDGET ACTIVITY **RDT&E,N**			PROGRAM ELEMENT **Amphibious Tactical Spt Unit/0204413N**			PROJECT NAME AND NUMBER Amphibious Lighterage Development (JMLS Development)/Y2909					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation			0.000	0.000							0.000	
Operational Test & Evaluation								4.000			4.000	
Tooling											0.000	
GFE											0.000	
Subtotal T&E			0.000	0.000		0.000		4.000		0.000	4.000	
Remarks:												
Contractor Engineering Support	CPRR	TBD	0.000	0.000				0.900			0.900	
Government Engineering Support	WR	NSWC Bethesda, Md						0.079			0.079	
Program Management Support	CPFF	various						0.000			0.000	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.000	0.000		0.000		0.979		0.000	0.979	
Remarks:												
Total Cost			0.000	0.000		0.000		4.979		0.000	4.979	
Remarks:												

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Exhibit R-3, Project Cost Analysis
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